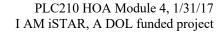Northwest State
Community College

PLC 210 Hands-On Assessments: Module 4

Student Name: _____ N# _____ Date: _____

This hands-on assessment requires that each student successfully demonstrates each of these tasks to the instructor's satisfaction. There is no grade for this assessment.

Prior to taking this assessment, the student must pass (minimum of 80%) the Knowledge and Application Assessment.

The student cannot proceed to the HOA for the next module without completing this HOA

Note: Be specific in answering questions on the status of Dest values.
        Saying only that tags are specific values is not a sufficient answer.
        Explain why tags have certain values.

Download the project file HOA_Module_4.ACD to the CompactLogix demo.
Ensure all demo inputs are OFF / False – Selector Switches turned to left.
Place processor in RUN mode

_____ 1. At Rung 0, what is the Data Type for tag1?_____

    At Rung 0, what is the Data Type for tag2?_____

    Enter the value of 115 for tag1

    What is the value of tag2?_____

    Enter the value of 200 for tag1

    Explain message box:_____

    _____

    _____

    Enter the value of 0 for tag1

_____ 2. At Rung 1, what is the Data Type for tag3?_____

    At Rung 1, what is the Data Type for tag9?_____

    Enter the value of 30000 for tag3

    What is the value of tag9?_____

    Enter the value of 50000 for tag3

    What is the value of tag9?_____

    Explain the tag 9 value:_____

    _____

    _____

_____ 3. At Rung 2, what is the Data Type for tag4?_____

At Rung 2, what is the Data Type for tag6?_____

Enter the value of 7.4 for tag4

What is the value of tag6?_____

Enter the value of 10.7 for tag4

What is the value of tag6?_____

 Enter the value of 6.5 for tag4

What is the value of tag6?_____

Enter the value of 9.5 for tag4

What is the value of tag6?_____

Explain how tag values are rounded in Logix 5000 processors

_____
_____
_____
_____

_____ 4. At Rung 3, what is the Data Type for tag7?_____

At Rung 3, what is the Data Type for tag5?_____

Enter the value of 2 billion for tag7

What is the value of tag5?_____

Explain the tag 5 value:_____

_____
_____

_____ 5. At Rung 4, monitor the Control tag for the SQO instruction

Tag Name of the Control Tag:_____

List the Structure of the Control Data Type:

Tag Name	Value	Data Type
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ 6. At Rung 5, monitor the Counter tag for the CTU instruction
Tag Name of the Counter Tag:_____
List the Structure of the Counter Data Type:

Tag Name	Value	Data Type
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

_____ 7. Toggle SS4 ON – to the right
At Rung 5, press PB1 Fifty (50) times.
What happens to the processor?_____
Where is the instruction located that caused the problem?_____

_____

_____

What specific condition that caused the problem?_____

_____

_____

To run the logic again:
Toggle SS4 OFF – to the left
Clear the Fault
Reset the CTU instruction at Rung 5
Zero out value_array file.

_____ 8. Are there User-Defined tags used in the Project file?_____
Name of User-Defined Data Type?_____
Name of tag(s) using the User-Defined Data Type?_____

DOL DISCLAIMER:

This product was funded by a grant awarded by the U.S. Department of Labor's Employment and Training Administration. The product was created by the grantee and does not necessarily reflect the official position of the U.S. Department of Labor. The Department of Labor makes no guarantees, warranties, or assurances of any kind, express or implied, with respect to such information, including any information on linked sites and including, but not limited to, accuracy of the information or its completeness, timeliness, usefulness, adequacy, continued availability, or ownership.